

International reference life cycle data system handbook

Supporting business and public authorities towards sustainable production and consumption

Almut Beate Heinrich

Received: 9 April 2010 / Accepted: 9 April 2010 / Published online: 23 April 2010
© Springer-Verlag 2010

Abstract To achieve more sustainable production and consumption patterns, it is mandatory to consider the environmental implications of the whole supply chain of products, both goods and services, their use and waste management, i.e. their entire life cycle from “cradle to grave”. The International Reference Life Cycle Data System (ILCD) Handbook provides governments and businesses with a basis for assuring quality and consistency of life cycle data, methods and assessments.

Keywords Academics · Business · Consistency of life cycle data · Consultants · Directorate-General for Environment · European Commission’s Joint Research Centre · Governments · Technical documents

1 Introduction

In the March issue of Int J Life Cycle Assess, David Pennington et al. reported on the consultation workshop concerning the *International Reference Life Cycle Data System (ILCD) Handbook*: “The European Commission is supporting the development of the International Reference Life Cycle Data System (ILCD). This consists primarily of the ILCD Handbook and the ILCD Data Network. This paper gives an insight into the scientific positions of business, governments, consultants, academics, and others that were expressed at this public consultation workshop” (Pennington et al. 2010).

On March 12, a press release was launched from the European Commission related to this Handbook. “The International Reference Life Cycle Data System (ILCD) Handbook provides detailed guidance on how to conduct a Life Cycle Assessment (LCA) to quantify the emissions, resources consumed and the pressures on the environment and human health that can be attributed to a product. It has been developed by the European Commission’s Joint Research Centre in cooperation with the Directorate-General for Environment. The ILCD Handbook is in line with international standards and has been established through a series of extensive public and stakeholder consultations.”¹

2 Overview on the Handbook

The ILCD Handbook is a series of technical documents that provide detailed guidance on all the steps required to conduct a LCA:

- The “General guide for Life Cycle Assessment” consists of both a comprehensive, detailed guide as well as a “cook-book”-style guide for experienced LCA practitioners.
- The “Specific guide for Life Cycle Inventory (LCI) data sets” builds on the general guide. It provides more detail for the generation of specific types of data.
- The “Life Cycle Impact Assessment (LCIA)” guide provides requirements for assessing the emissions and resource consumption associated with a product in

A. B. Heinrich (✉)
Kirschgartenstr. 91,
69126 Heidelberg, Germany
e-mail: abh.scientificjournals@googlemail.com

¹ The full version is available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/273&format=HTML&aged=0&language=EN&guiLanguage=en>

terms of impacts on the environment, human health and resources depletion.

- The guide on “Review schemes for Life Cycle Assessment” presents the minimum requirements for review for life cycle data or assessments for different applications.
- The guide on “Reviewer qualification” specifies the requirements on the experiences and expertise of reviewers.

In the Communication on Integrated Product Policy, the European Commission committed to produce a handbook on best practice in LCA. The Sustainable Consumption and Production Action Plan confirmed that consistent and reliable data and methods are required to assess the overall environmental performance of products. The Handbook’s main goal is to ensure quality and consistency of life cycle data, methods and assessments. Its main target audience encompasses LCA practitioners, data providers and reviewers.

3 Why is the handbook essential?

- The ISO 14040/44 standards provide the general framework for Life Cycle Assessment. However, this framework leaves the practitioner with a range of choices that can change the results and conclusions.

- Comprehensive guidance is required to support consistent and robust results and coherent requirements derived from LCAs.
- The ILCD Handbook aims to reduce costs by improving the compatibility and consistency of data generation and reporting requirements.
- The ILCD Handbook aims to increase stakeholder acceptance of the tool LCA and its results.

4 Consultation

In order to achieve a best-attainable consensus reflecting current best practice, the ILCD Handbook was developed through a series of consultation steps, involving amongst others advisory groups from business, LCA software developers and LCIA method developers, five national LCA projects from outside the EU, the United Nations Environment Programme and the general public.

Reference

- Pennington DW et al (2010) ILCD Handbook Public Consultation Workshop. International Reference Life Cycle Data System (ILCD). Int J Life Cycle Assess 15(3):231–237